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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, LE V

ART UNIT	PAPER NUMBER
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2174

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/757,930

Applicant(s)

ERTEN ET AL.

Examiner

Le Nguyen

Art Unit

2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-21,31 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,21,31 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This communication is responsive to an amendment filed on 9/27/04.
2. Claims 1-3, 5-21, 31 and 32 are pending in this application with claims 1, 11 and 17 being independent claims. Claims 1-3 and 5-21 have been amended; claims 4 and 22-30 have been cancelled; and claims 31 and 32 have been added. This action is made Final.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 9, 17-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 appears to depend on another claim; however, the claim it depends on is not disclosed. The examiner will continue to treat claim 9 as depending upon claim 8.

Claim 17 recites the limitation "the device display" in lines 5, 7 and 15. There is insufficient antecedent basis for this limitation in the claim. The claim's preamble cites both "a device" and "a display". The examiner will interpret "the device display" to mean the device. Claim 17 also recites the limitation "the device display surface" in lines 9 and

12-13. There is insufficient antecedent basis for this limitation in the claim. The examiner will interpret "the device display surface" to mean the device's boundaries of control of the continuous display area/surface. Furthermore, the examiner is unclear what is meant by applicant's recitation of "a method for establishing a mapping *between* a virtual display space for a human user interacting [*and*] a device with a display comprising the steps of..." in claim 17 and will interpret the claim to mean a method for establishing a mapping between a human user's interaction with a device and a display within a virtual display space.

Claim Rejections - 35 USC § 103

6. Claims 1-3, 5, 6, 8, 10, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Filo et al. ("Filo") in view of Rekimoto et al. ("Rekimoto").

As per claim 1, Filo teaches a system for interacting with displays and devices that use such displays comprising:

a display configured to interact with a part of the body of a user of the system such as the hand or the finger, or an ornament or an object or device worn on the body such as a glove or thimble (figs. 2(A-B), 4, 5(A-B) and 11);

a camera adapted to have in its field of view at least one of the following: (i) the finger of the human user and pointing object, or (ii) the display and the reflection or effect the finger of the human user along with the pointing object produces on the display (col. 9, lines 30-38 and lines 49-52; col. 7, lines 19-22 and lines 51-54; col. 11, lines 32-55; col. 13, lines 34-35 and lines 10-13, 15-16; col. 14, lines 10-24);

a means for detecting the position of the finger of the human user or its reflection or effect on the display in an image registered by the camera (col. 7, lines 18-20; col. 12, lines 26-34; col. 14, lines 10-19); and

a means for establishing the mapping between the position of the finger of the human user or its reflection or effect on the display in the image registered by the camera and a corresponding location on the display (fig. 10; col. 18, line 52 through col. 19, line 1; col. 7, lines 17-19; col. 12, lines 26-34; col. 14, lines 10-19).

Although, Filo teaches a display configured to interact with a part of the body of a user of the system such as the hand or the finger, or an ornament or an object or device worn on the body such as a glove or thimble, Filo does not explicitly disclose the interaction between the user and display comprising a user's naked hand or finger and without additional attachments. Rekimoto teaches a system for interacting with displays and devices that use such displays wherein the interaction between the user and display comprises a user's naked hand or finger (figs. 1,7-9 and 14(A-B); col. 7, lines 5-11; col. 7, line 49 through col. 8, line 57; col. 9, lines 60-65; col. 10, lines 45-60; col. 15, line 60 through col. 16, line 36). Therefore, it would have been obvious to an artisan at the time of the invention to include Rekimoto's teaching of a system for interacting with displays and devices that use such displays wherein the interaction between the user and display comprises a user's naked hand or finger to Filo's teaching of a system for interacting with displays and devices that use such displays wherein the interaction between the user and display comprises a user's naked hand or finger with an attachment so that manipulation can be performed in a space in front of the display

utilizing direct manipulation without requiring the aid of a special pointing device and, consequently, provide a more advanced or enhanced interactive input/output environment for users of the system.

As per claim 2, the modified Filo teaches a system for interacting with displays and devices that use such displays which commands the positioning of a pointing icon on the display (Filo: figs. 4B, 8, 10 and 11; col. 11, lines 32-55; col. 12, lines 26-35; col. 13, lines 34-35 and lines 10-13, 15-16; col. 9, lines 49-50).

As per claim 3, the modified Filo teaches a system for interacting with displays and devices that use such displays wherein the system commands the input of data into the device using the display (Filo: fig. 10; col. 18, line 52 through col. 19, line 1; col. 7, lines 17-19; col. 12, lines 26-34; col. 14, lines 10-19).

As per claim 5, the modified Filo teaches a system for interacting with displays and devices that use such displays wherein the pointing object is used to point to regions of the display by way of changing its position, attitude, or presentation (Filo: col. 9, line 61 through col. 10, line 3).

As per claim 6, the modified Filo teaches a system for interacting with displays and devices that use such displays wherein the pointing object is used to select, highlight, or define a particular point or region on the display (Filo: col. 9, line 61 through col. 10, line 3; col. 12, lines 26-35).

As per claim 8, the modified Filo teaches a system for interacting with displays and devices that use such displays wherein the pointing icon on the display can be registered by the camera that has in its field of view the naked hand or finger of the

human user (Filo: figs. 2B, 8, 10 and 11; col. 11, lines 43-46; col. 12, lines 31-32; *the sensor having camera capabilities, i.e. by definition, a camera is the part of a television transmitting apparatus that receives the primary image and transforms it into electrical impulses*; Rekimoto: figs. 14(A-B) and respective portions of the specification), Filo does not explicitly disclose the pointing icon being registered by the camera. Hansen teaches a pointing icon being registered by a camera (col. 4, lines 27-31; col. 7, lines 18-27; col. 8, lines 40-45; col. 9, lines 3-25).

As per claim 10, the modified Filo teaches a system for interacting with displays and devices which also includes at least one of the following (Filo: col. 9, line 49 through col. 10, line 22; col. 7, lines 40-49; col. 8, lines 10-21, 30-37; col. 11, lines 61-63; col. 13, lines 17-24; col. 14, lines 26-32):

- a) a method for selecting or highlighting a specific item or icon on the display;
- b) a method for activating a specific process, program, or menu item represented on the display; and
- c) a method for writing, scribing, drawing, highlighting, annotating, or otherwise producing marks on the display.

As per claim 31, the modified Filo teaches a system for interacting with displays and devices that use such displays comprising another camera and wherein the pointing icon on the display can be registered by the other camera (Rekimoto: fig. 12, *elements 4A and 4B*).

As per claim 32, the modified Filo teaches a system for interacting with displays and devices that use such displays wherein the means for detecting only detects the

position of the naked hand or finger of the human user in an image registered by the camera without a display background (Rekimoto: col. 16, lines 5-17).

7. Claims 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen in view of Rekimoto et al. ("Rekimoto").

As per claim 11, Hansen teaches a method for detecting a position of a pointing object or its reflection or effect on a display in an image registered by a camera comprising the steps of:

a) defining at least one characteristic of the pointing object or its reflection or effect on the display that (i) is registered in the image captured by the camera and (ii) distinguishes the pointing object from other objects registered in the image from the camera (col. 3, lines 28-40; col. 8, lines 30-49),

b) retrieving the image from the camera (col. 8, lines 12-20),

c) analyzing the image from the camera to locate the characteristic or characteristics of the pointing object or its reflection or effect on the display pointing object (col. 8, lines 12-50),

d) determining the most likely position of the pointing object or its reflection or effect on the display in the image from the camera based on at least one of the following: (i) the last known position of the pointing object or its reflection or effect on the display in the image, (ii) the position or positions at which the at least one distinguishing characteristic of the pointing object, or its reflection or effect on the display or the set of the picture elements in the image that comprise the rendition of the pointing object, or

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its reflection or effect on the display (col. 4, lines 27-31; col. 7, lines 18-27; col. 8, lines 40-45; col. 9, lines 3-25).

Although, Hansen teaches a display configured to interact with a part of the body of a user of the system such as the hand or the finger along with the pointing object, Hansen does not explicitly disclose the interaction between the user and display comprising a user's naked hand or finger. Rekimoto teaches a system for interacting with displays and devices that use such displays wherein the interaction between the user and display comprises a user's naked hand or finger (figs. 1,7-9 and 14(A-B); col. 7, lines 5-11; col. 7, line 49 through col. 8, line 57; col. 9, lines 60-65; col. 10, lines 45-60; col. 15, line 60 through col. 16, line 36). Therefore, it would have been obvious to an artisan at the time of the invention to include Rekimoto's teaching of a system for interacting with displays and devices that use such displays wherein the interaction between the user and display comprises a user's naked hand or finger to Hansen's teaching of a system for interacting with displays and devices that use such displays wherein the interaction between the user and display comprises a user's naked hand or finger along with a pointing object so that manipulation can be performed in a space in front of the display utilizing direct manipulation without requiring the aid of a special pointing device and, consequently, provide a more advanced or enhanced interactive input/output environment for users of the system.

As per claim 12, the modified Hansen teaches a method for detecting a position of a naked hand or finger of a human user in an image registered by a camera wherein at least one characteristic that distinguishes the pointing object/naked hand or finger

from other objects in the image registered by the camera is known a priori (Hansen: col. 4, lines 55-56; Rekimoto: figs. 1,7-9 and 14(A-B); col. 15, line 60 through col. 16, line 36).

As per claims 13 and 14, the modified Hansen teaches a method for detecting a position of a naked hand or finger of a human user in an image registered by a camera wherein at least one characteristic that distinguishes the pointing object/naked hand or finger from other objects in the image from the camera is determined based on analysis of at least one image of the same pointing object/naked hand or finger acquired from the camera and wherein at least one characteristic that distinguishes the pointing object/naked human hand or finger from other objects, whose rendition are present in the image from the camera is obtained by acquiring at least two images from the camera, one with the pointing object in view of the camera and one without, and comparing the two sets with one another (Hansen: col. 4, lines 15-41; col. 7, lines 18-27; col. 8, lines 38-45; Rekimoto: figs. 1,7-9 and 14(A-B); col. 7, lines 5-11; col. 7, line 49 through col. 8, line 57; col. 9, lines 60-65; col. 10, lines 45-60; col. 15, line 60 through col. 16, line 36).

As per claim 15, the modified Hansen teaches a method for detecting a position of a naked hand or finger of a human user in an image registered by a camera wherein adjustments or modifications are made to the position, viewing angles, sensitivity, and other settings of the camera pursuant the analysis of the data or image retrieved from the camera (Hansen: col. 4, lines 12-18).

As per claim 16, the modified Hansen teaches a method for detecting a position of a naked hand or finger of a human user in an image registered by a camera wherein at least part of the procedures for the method is carried out using at least in part the computing mechanism available on one or more of the following: the display, or the camera, or the pointing device, or the device producing the signal shown on the display, or the device producing the pointing icon on the display (Rekimoto: figs. 1,7-9 and 14(A-B); col. 7, lines 5-11; col. 7, line 49 through col. 8, line 57; col. 9, lines 60-65; col. 10, lines 45-60; col. 15, line 60 through col. 16, line 36).

8. Claims 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen in view of Filo, and further in view of Rekimoto et al. ("Rekimoto").

As per claim 17, Hansen teaches a method for establishing a mapping between a human user's interaction with a device and a display within a display space comprising the steps of defining the boundaries of the positions that the pointing object can assume in addressing points or regions on the device and defining, within the boundaries, a continuous display surface (Abstract; col. 3, lines 21-42; col. 3, line 63 through col. 4, line 8; *described is a display space for human user interaction with a device and display wherein user's manipulation of the set of positions that a pointing object assumes in addressing a set of corresponding points or regions on the display comprises the steps of defining the boundaries of the positions that the pointing object can assume in addressing points or regions on the display device and defining the boundaries of the display space*), defining the boundaries of the device and defining within the boundaries of the display a continuous display surface (Abstract; col. 3, lines 21-42; col. 3, line 63

21-42; col. 3, line 63 through col. 4, line 8; *defined are a continuous display surface and the device's boundaries of control of the continuous display area/surface*), warping the geometry of the continuous display surface so that at least one region of the continuous display surface overlaps with at least one region of the device's boundaries of control of the continuous display area/surface and establishing a one-to-one or many to one correspondence between the overlapping regions of the device's boundaries of control of the continuous display area/surface and the continuous display surface (col. 7, lines 13-20; *the geometry of the pointing object surface is scaled or warped so that regions of the pointing object surface have an area in common with/overlaps with a region of the display surface to establish a one-to-one or many to one correspondence between regions of the pointing object surface and display surface*).

However, Hansen does not explicitly disclose segmenting the continuous display surface and pointing object surface into at least two regions in a virtual display space. Filo teaches a method for establishing a mapping between a human user's interaction with a device and a display within a virtual display space comprising segmenting a continuous display surface and associated/corresponding device's boundaries of control of the continuous display area/surface into at least two regions (figs. 2B, 8, 10 and 11; col. 3, lines 38-42; col. 11, lines 43-46; col. 12, lines 26-35; col. 14, lines 10-24; col. 18, line 52 through col. 19, line 5; *segments of the display corresponds with segments of pointing object surface selected and wherein detecting a display perspective is inherent when there is already a method for detecting the pointing device in an interactive virtual world environment*) and warping the geometry of the continuous display surface so that

at least one region of the continuous display surface overlaps with at least one region of the device's boundaries of control of the continuous display area/surface and establishing a one-to-one or many to one correspondence between the overlapping regions of the device's boundaries of control of the continuous display area/surface and the continuous display surface (col. 17, line 33 through col. 18, line 24; col. 18, line 52 through col. 19, line 5). Therefore, it would have been obvious to an artisan at the time of the invention to include Filo's method for establishing a mapping between the set of positions that a pointing object can assume in addressing a set of corresponding points or regions on the display comprising segmenting the display surface and pointing object surface into at least two regions in a virtual display space to Hansen's method for establishing a mapping between the set of positions that a pointing object can assume in addressing a set of corresponding points or regions on the display in order to make the work environment more like a real life work environment as well as provide users with the ability to compartmentalize or organize areas of focus according to content.

Hansen and Filo still do not explicitly disclose the interaction between the user and display comprising a user's naked hand or finger. Rekimoto teaches a system for interacting with displays and devices that use such displays wherein the interaction between the user and display comprises a user's naked hand or finger (figs. 1,7-9 and 14(A-B); col. 7, lines 5-11; col. 7, line 49 through col. 8, line 57; col. 9, lines 60-65; col. 10, lines 45-60; col. 15, line 60 through col. 16, line 36). Therefore, it would have been obvious to an artisan at the time of the invention to include Rekimoto's teaching of a system for interacting with displays and devices that use such displays wherein the

interaction between the user and display comprises a user's naked hand or finger to Hansen and Filo's teaching of a system for interacting with displays and devices that use such displays wherein the interaction between the user and display comprises a user's naked hand or finger along with a pointing object so that manipulation can be performed in a space in front of the display utilizing direct manipulation without requiring the aid of a special pointing device and, consequently, provide a more advanced or enhanced interactive input/output environment for users of the system.

As per claim 18, the modified Hansen teaches a method for establishing a mapping between a human user's interaction with a device and a display within a virtual display space wherein the boundaries of the set of positions that a pointing object/naked hand and finger can assume are obtained by positioning a camera in a way such that the camera has in its view the naked hand or finger of the human user and wherein the boundaries of the set of positions that the pointing object/naked hand and finger can assume are obtained by querying the user to point to the boundaries (Hansen: Abstract; col. 3, lines 21-42; col. 3, line 63 through col. 4, line 8; Filo: col. 12, lines 5-22; col. 12, lines 26-35; col. 14, lines 10-24; Rekimoto: figs. 1,7-9 and 14(A-B); col. 15, line 60 through col. 16, line 36).

As per claim 19, the modified Hansen teaches a method for establishing a mapping between a human user's interaction with a device and a display within a virtual display space wherein the boundaries of the set of positions that a naked hand or finger can assume are obtained by positioning a camera in a way such that the camera has in its field of view the human user, locating the human user in the image from the camera

and deducing the positions the hand or the finger of the user can assume from the position of the human user in the image from the camera (Rekimoto: figs. 1,7-9 and 14(A-B); col. 7, lines 5-11; col. 7, line 49 through col. 8, line 57; col. 9, lines 60-65; col. 10, lines 45-60; col. 15, line 60 through col. 16, line 36).

As per claim 20, the modified Hansen teaches a method for establishing a mapping between a human user's interaction with a device and a display within a virtual display space wherein the regions of the virtual display surface comprise at least two sets of pixel elements that comprise the image on the display (Hansen: col. 5, lines 1-15; Filo: col. 12, lines 5-22).

As per claim 21, the modified Hansen teaches a method for establishing a mapping between a human user's interaction with a device and a display within a virtual display space wherein at least part of the procedures for the method is carried out using at least in part the computing mechanism available on one or more of the following: the display, or the camera, or the device producing the signal shown on the display, or the device producing the pointing icon on the display (Hansen: fig. 1; col. 2, line 66 through col. 3, line 55; Filo: figs. 1 and 2; col. 6, lines 6-66; Rekimoto: figs. 1,7-9 and 14(A-B); col. 7, lines 5-11; col. 7, line 49 through col. 8, line 57; col. 9, lines 60-65; col. 10, lines 45-60; col. 15, line 60 through col. 16, line 36).

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Filo et al. ("Filo") in view of Rekimoto et al. ("Rekimoto") as applied to claim 1, and further in view of Edwards et al. ("Edwards").

As per claim 7, the modified Filo teaches a system for interacting with displays and devices that use such displays comprising a pointing object/naked hand or finger for entering information into the system and can be used in conjunction with various software applications (Filo: col. 7, lines 46-54; col. 8, lines 16-35; col. 10, lines 24-31 and line 57; col. 13, lines 21-25; *information entered into the system further include a clipboard on which a user can draw*; Rekimoto: figs. 1,7-9 and 14(A-B); col. 7, lines 5-11; col. 7, line 49 through col. 8, line 57; col. 9, lines 60-65; col. 10, lines 45-60; col. 15, line 60 through col. 16, line 36). The modified Filo does not explicitly disclose the pointing object/naked hand or finger to be used to define a vector on the plane of the display that indicates a direction and magnitude relative to or with respect to an item on the display or a region of the display. Edwards teaches a system for interacting with displays wherein the pointing object to be used to define a vector on the plane of the display that indicates a direction and magnitude relative to or with respect to an item on the display or a region of the display (col. 8, lines 12-21). Therefore, it would have been obvious to an artisan at the time of the invention to include Edwards' teaching of a computer aided design tool, wherein the pointing object to be used to define a vector on the plane of the display that indicates a direction and magnitude relative to or with respect to an item on the display or a region of the display, to the modified Filo's teaching of a system for interacting with displays that includes drawing capabilities to provide users with an environment capable of incorporating multiple applications and capabilities to enhance a user's individual task.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Filo et al. ("Filo", US 6,215,498 B1) in view of Rekimoto et al. ("Rekimoto") as applied to claim 8, and further in view of Applicant's Admitted prior art.

As per claim 9, although the modified Filo teaches a system for interacting with displays and devices that use such displays comprising means for sensing the naked finger/pointing object's position relative to the position of a pointer icon on the display (Filo: col. 7, lines 1-19; Rekimoto: figs. 1,7-9 and 14(A-B); col. 7, lines 5-11; col. 7, line 49 through col. 8, line 57; col. 9, lines 60-65; col. 10, lines 45-60; col. 15, line 60 through col. 16, line 36), the modified Filo does not explicitly disclose the system to include a means for correcting the offsets between the position of the naked finger/pointing object, or reflection, or effect thereof on the display as observed by the user or by the camera, and the position of the pointer icon on the display. However, Applicant's admitted prior art teaches a system for interacting with displays and all devices that use such displays to include a means for correcting the offsets between the position of the pointing object, or reflection, or effect thereof on the display as observed by the user or by the sensor or the camera, and the position of the pointer icon on the display (page 21, lines 6-9). Therefore, it would have been obvious to an artisan at the time of the invention to include Applicant admitted prior art's teaching of a system for correcting the offsets between the position of the pointing object and the position of the pointer icon on the display to the modified Filo's system for sensing the naked finger/pointing object's position relative to the position of a pointer icon on the display in order to reduce the

margin of error concerning the position of the pointing object and the position of the pointer icon on the display.

Response to Arguments

11. Applicant's arguments with respect to claims 1-3, 6 and 10-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Trajkovic (US 6,531,999) teaches a pointing direction calibration in video conferencing and other camera-based system applications.

Omura et al. (US 6,421,042 B1) teach a coordinate position inputting/detecting device, a method for inputting/detecting the coordinate position and a display board system.

Pryor et al. (US 6,720,949 B1) teach man machine interfaces and applications.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Inquires

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Lê Nguyen whose telephone number is **(571) 272-4068**. The examiner can normally be reached on Monday - Friday from 7:00 am to 3:30 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid, can be reached on (703) 308-0640.

The fax numbers for the organization where this application or proceeding is assigned are as follows:

(703) 872-9306 [Official Communication]

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

LVN
Patent Examiner
February 27, 2005

Kristine Kincaid
KRISTINE KINCAID
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100